

**Abstract**

A phase shifting wavefront superimposition method in which the intensities of superimposition patterns of object wavefront and reference wavefronts produced successively in time with respective phase shifts by predefinable phase steps are registered for a respective predefinable location and, from the registered intensities, an object-induced phase difference between object wavefront and reference wavefront is determined for the respective location. Phase step errors in the successively produced superimposition patterns are determined by means of a spatial superimposition pattern evaluation and taken into account correctively in the determination of the object-induced phase difference. The method is used for example, in wavefront measurement of optical imaging systems by means of phase shifting interferometry for the purpose of highly accurate determination of imaging errors.